

IN THE SPECIFICATION:

The specification as amended below with replacement paragraphs shows added text with underlining and deleted text with ~~strike-through~~.

Please REPLACE the paragraph beginning at page 2, lines 3-4, with the following paragraph:

In this example, two electric discharge sections 3a, 3b each having an electric discharge tube are excited by the respective power sources 1a, 1b. The power sources 1a, 1b supply ~~alternative~~alternating current and thus the electric discharges generated in the electric discharge sections 3a, 3b are ~~alternative~~alternating electric discharges.

Please REPLACE the paragraph beginning at page 4, lines 25-26, with the following paragraph:

FIGS. 2a-2c are schematic cross-sections of an electric discharge section of the laser oscillator, in which FIG. 2a shows a force exerted on an electric discharge current in excitation of coils, FIGS. 2a and 2b show influences of the force on an electric discharge current which varies in accordance with a phase of an ~~alternative~~alternating electric-discharge excitation current and FIG. 2d shows a state of the electric discharge current in one cycle of the ~~alternative~~alternating electric-discharge current;

Please REPLACE the paragraph beginning at page 5, lines 1 and 2, with the following paragraph:

The medium gas circulates along circulating paths through the optical resonating space by a blower 6 as shown by an arrow 7. The medium gas discharged from the blower 6 passes through a heat exchanger 5a, for ~~remove~~-removing compression heat, and is then supplied to the electric discharge sections 3a, 3b. In the electric discharge sections 3a, 3b, the medium gas is pumped by electric discharge between the electrodes 2a, 2b to generate a laser beam. The generated laser beam is amplified by the optical resonator and outputted from the output mirror 4b according to the well known principle. The gas medium heated by the electric discharge is cooled by the heat exchanger 5b to return to the blower 6.

Please REPLACE the paragraph beginning at page 5, line 21-22, with the following paragraph:

The electric discharge sections 3a, 3b have electrodes 2a, 2b respectively, and the electrodes 2a are connected with an electric discharge power source 1a and the electrodes 2b are connected with an electric discharge power source 1b. The electric discharge power sources 1a, 1b are ~~alternative~~-alternating current power supply for supplying ~~alternative~~ alternating power to the respective electric discharge sections 3a, 3b. The sources 1a, 1b are connected to a controller 10 so that ON/OFF and adjustment of the electric power to be supplied are performed.

Please REPLACE the paragraph beginning at page 6, line 22, with the following paragraph:

The coil exciting circuits 9a-9d for exiting the respective coils 8a-8d are connected to a controller 10 so that intensities and directions of exciting currents to be flown in the coils 8a-8d are respectively controlled. In this embodiment, direct currents are flown in the coils as the excitation currents. The excitation currents may be ~~alternative~~-alternating currents, as described later.

Please REPLACE the paragraph beginning at page 7, line 9, with the following paragraph:

The beam mode in ~~according~~ accordance with variation of the state of the electric discharge in the electric discharge section is influenced by widths of the electrodes. A general relation between widths of the electrodes of the electric discharge tube and the beam mode is disclosed in the above-mentioned JP 64-42187A. Referring to FIG. 3, how the beam mode is determined in accordance with the electric discharge state in the electric discharge tube will be described with respect to a case where widths of the electrodes are relatively narrow.

Please REPLACE the paragraph beginning at page 8, line 14, with the following paragraph:

In the foregoing embodiment, the magnetic fields are generated by flowing the direct currents in the coils. In the case where the electrodes 2a, 2b are arranged spirally around the electric discharge tubes, the electric discharge power sources 1a, 1b and the coil excitation circuits 9a-9d may be synchronously controlled such that magnetic fields synchronized with the electric discharge currents are generated by flowing ~~alternative~~ alternating current in the coils 8a-8d in the respective electric discharge sections 3a, 3b. In this case, the electric discharges are ~~caused to bend~~ bended in one direction, irrespective of the direction of the electric current (phase of the alternate current) in cross sections of the electric discharge tubes, as shown in FIG. 5. Since the bending direction of the electric discharge is continuously changed (turned) spirally with respect to position of the electric discharge in a longitudinal direction of the electric discharge tube, the beam modes as shown in FIGS. 4a-4c and FIG. 3b are attained in accordance with ~~intensity~~ selectively varied intensities of the magnetic field.

Please REPLACE the paragraph beginning at page 9, line 19, with the following paragraph:

Further, the description has been made ~~on~~ for the case where the gas electric discharge is ~~an~~ an ~~alternative~~ alternating electric discharge. The same principle (i.e. applying magnetic field to the electric discharge current to control the electric discharge state) may be applied to a direct current electric discharge or a pulse electric discharge to obtain the same effect.

Please REPLACE the paragraph beginning at page 10, line 2, with the following paragraph:

Further, the electric discharge as shown in FIG. 2b and the electric discharge as shown in FIG. 2c are obtained by setting one of the direction of magnetic field and the direction of the electric discharge in the electric discharge section 3a opposite to one of the direction of magnetic field and the direction of the electric discharge in the electric discharge section 3b. In this case, the laser oscillation of the mode (e.g. the ring mode) equivalent to that obtained by the electric discharge as shown in FIG. 2d is obtained as a whole.